

## Trip Report: White Abalone Restoration and Education

On May 11, 2006, researchers and divers from Channel Islands National Park (CINP), California Department of Fish and Game (CDFG), and Channel Islands National Marine Sanctuary (CINMS) joined students and teachers from Oxnard College on a combined research and education trip to the kelp forests of Anacapa Island on board the research vessel Shearwater. Tom McCormick, instructor at Oxnard College, brought his Marine Sampling Techniques and Field Studies class to observe the researchers at work underwater via a live video link. The researchers used SCUBA to sample baby abalone recruitment trackers (BARTs). David Kushner, CINP biologist, was outfitted with a communication mask enabling him to talk to students while he was underwater while CINP diver Mike Moss filmed Kushner with an underwater video camera. Both Kushner and Moss were tethered to each other as well as to the boat, allowing the students to view real time video and have two-way communication with the divers. CINP dive safety officer Dave Stoltz and CINMS Research Assistant Dani Lipski tended the lines tethering the divers to the surface ensuring the divers did not get tangled in the lines or kelp.



Class and crew aboard the sanctuary's research vessel

The divers descended through the kelp forest to a depth of 50 feet. The BARTs are cages on the bottom filled with cinder blocks that have been cut in half. With Moss filming, Kushner opened the cage and carefully pulled out each cinderblock while he described the process for the students on the surface. He examined each cinderblock for animals and found such species as red and purple urchins, nudibranchs, and coweries with broods of eggs. Kushner placed the animals he found into a collecting bag. Meanwhile,



Kushner and students measure animals

CDFG scientists Pete Haaker and Ian Tanaguchi sampled BARTs nearby. At the end of the dive, no abalone recruits had been found in any of the BARTs which is not uncommon because abalone densities are extremely low. However, the BARTs provide valuable baseline information about invertebrates in the area.

Back on the surface, the divers handed their collecting bags to the students who diligently recorded the species and sizes onto data sheets. Kushner and Moss helped the students identify and properly measure each animal. After the animals were measured, divers returned the animals to the cages where they had been found.

In addition to participating in the White Abalone research project, the class also took water and plankton samples, recorded weather measurements and marine mammal sightings and interviewed some of the scientists on board about their jobs.



Students study a chart of the islands